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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/937,124	12/27/2001	Birgit Seidel	F-7160	6341
28107	7590	04/02/2004	EXAMINER	
JORDAN AND HAMBURG LLP 122 EAST 42ND STREET SUITE 4000 NEW YORK, NY 10168			LISH, PETER J	
			ART UNIT	PAPER NUMBER
			1754	

DATE MAILED: 04/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/937,124

Applicant(s)

SEIDEL ET AL.

Examiner

Peter J Lish

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 4, 7, 9 and 10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4, 7, 9, 10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

Applicant's arguments filed 12/23/03 have been fully considered but they are not persuasive.

Applicant argues that the combination of JP '216 and WO '826 is in contradiction to the teaching of the references because WO '826 teaches that some of the seed crystals have a size greater than 14 mesh while JP '216 teaches seed crystals having a size of less than 30 mesh. However, JP '216 does not require that all seed crystals have a size of less than 30 mesh, it merely shows an example wherein this is the case. Additionally, the ranges are not mutually exclusive. Thus the incorporation of one processes teachings regarding preferred temperatures into the other process does not contradict the teachings of either process individually.

Furthermore, the size of the seed crystals of WO '826 is not relied upon. JP '216 teaches a process for the growth of large ammonium sulfate crystals from seeds, as does WO '826. WO '826 additionally teaches that the temperature of the seeds is preferably maintained at least 10 °C below the crystallization temperature. It would have been obvious to incorporate this teaching into the process of JP '216 regardless of the differences in seed sizes.

### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 4, 7, and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO '826.

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WO '826 teaches on page 3, line 23 to page 4, line 27 a crystallization process where a slurry of seed crystals, individually formed, are fed to a crystallization process, where the crystals are no greater than the operating temperature of the crystallizer and are fed in the amount of 4-25 % by weight of the product resulting from the crystallizer. Although WO '826 teaches at least 35% of the seed crystals are larger than 1.2 mm in size, there remains a significant portion (65%) that is smaller than 1.2 mm. Thus average seed sizes of 0.1 to 1 mm or 0.3 to 0.8 mm can thus be present within the teaching of WO '826. Column 7, line 45 teaches the feed crystals should be at least 10 °C lower than the crystallization temperature. The examples teach crystallization of ammonium sulfate. No difference is seen between the process of WO '826 and that of the instantly claimed invention.

Claims 4, 7, and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP '216 in view of WO '826.

JP '216 teaches seed crystals of ammonium sulfate granulated to a size of less than 30 mesh, which is less than 0.681 mm, are added to a tank kept at 45 °C. Then a mother liquor solution was continuously passed through the tank to generate ammonium sulfate crystals. Since the seed crystals are added to the tank before the circulation of mother liquor, it appears the crystals are added batchwise to the control the amount of crystals in the crystallizer.

JP '216 does not explicitly teach the addition of the seed crystals in an amount of between 5-30 %, preferably 7-15 %, by weight of the solids discharged from the reactor, however, it is expected that this be the case, as JP '216 teaches the addition of seed crystals in an amount of between 1-20%. Where, as here, the reference discloses all the limitations of a claim

except a property or function, and the examiner cannot determine whether or not the reference inherently possesses properties which anticipate or render obvious the claimed invention, the burden of proof is shifted to the applicant, as in *In re Fitzgerald*, 619 F.2d 67, 205 USPQ 594 (CCPA 1980).

JP '216 does not teach the seeds are maintained at a temperature 10 to 30 °C lower than the crystallizer. However, WO '826 teaches in a very similar process for producing crystals of ammonium sulfate using seeds, that the seed material to be added should be at least 10 °C cooler than the crystallizer. At the time the invention was made, it would have been obvious to one of ordinary skill in the art to maintain the seeds at the temperature taught by WO '826 in the process of JP '216 because WO '826 provides useful information that is directly applicable to the process of JP '216 since the processes are virtually the same.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter J Lish whose telephone number is 571-272-1354. The examiner can normally be reached on 9:00-6:00 Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PL



**STUART L. HENDRICKSON**  
**PRIMARY EXAMINER**